

Whereas, copper and other minerals produced through the hardrock mining process are critical to developing and manufacturing low-carbon energy sources, including, PV cells, wind turbines, electric vehicles, medical equipment and battery storage; and

Whereas, each 3MW wind turbine requires approximately 4.7 tons of copper to produce reliable low-carbon energy; and

Whereas, PV cell production accounts for seven percent of global silver demand; and

Whereas, the World Bank estimates that in the next twenty-five years the world will need 550 million tons of copper, which is equal to all the copper produced in the previous five thousand years, to meet low-carbon energy demands; and

Whereas, according to the United States Geological Survey, Arizona was second in the nation in the value of 2018 nonfuel mineral production, which includes sand and gravel, cement and crushed stone as well as copper and other minerals such as molybdenum, lead, zinc, gold, silver, coal and uranium; and

Whereas, Arizona has been the nation's top producer of copper for more than a century, delivering two-thirds of United States copper exports and sixty-eight percent of the nation's copper; and

Whereas, mining activity and employment opportunities are distributed widely throughout the state and provide economic benefits for every Arizona county; and

Whereas, the hardrock mining industry is Arizona's second largest industry by economic impact, directly and indirectly employing more than 38,900 valuable and important individuals with an average income higher than Arizona's median wage in 2018 who are a part of the successes of the mining industry; and

Whereas, in 2018, the hardrock mining industry directly and indirectly generated \$370 million in state and local tax revenues, creating a total economic impact of \$11.4 billion; and

Whereas, to ensure that mining operations are safe for employees, communities and the environment, the hardrock mining industry is regulated by a combination of state and federal agencies, including the Arizona Department of Environmental Quality, the United States Environmental Protection Agency, the Arizona State Mine Inspector's Office and the United States Department of Labor Mine Safety and Health Administration.

Therefore, be it resolved, by the House of Representatives of the State of Arizona, the Senate concurring:

That the Members of the Legislature recognize the importance of the hardrock mining industry to Arizona's economy and support the involvement of Arizona's government and the hardrock mining industry in any future regulatory changes to ensure that operations continue to be safe and productive for the State of Arizona.

Passed the House February 4, 2021 by the following vote: 58 Ayes, 1 Nays, 0 Not Voting, 1 Vacant.

Unanimously Adopted by the Senate:

Passed the Senate April 22, 2021 by the following vote: - Ayes, - Nays, - Not Voting.

EXECUTIVE DEPARTMENT OF ARIZONA OFFICE OF SECRETARY OF STATE

This Resolution received by the Secretary of State this 22nd day of April, 2021 at 3:15 o'clock P.M.

RECOGNIZING THE RETIREMENT OF VERNON POLICE CHIEF JAMES KENNY

HON. JOE COURTNEY

OF CONNECTICUT

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 11, 2021

Mr. COURTNEY. Madam Speaker, I rise today to pay tribute to the distinguished career in public service of Vernon Police Chief James Kenny. Having pursued a 36-year long career toward the betterment of the local policing community, the latter 15 within my hometown of Vernon, Chief Kenny announced his decision to retire on July 9, 2021. As a resident of Vernon who directly benefited from Chief Kenny's commitment to "Preserve and Protect" and as a public official who has a front row seat to observe him in action, I can attest to his stellar record of public service.

Born and educated in the nearby town of Rocky Hill, James was destined to deepen his roots within the region help and build upon the community ties that raised him. Connected to his commitment to the community was his passion for service: immediately upon his graduation from Rocky Hill High School in 1978, James enlisted into the United States Army. He trained as a military police officer and served overseas, ultimately receiving an honorable discharge. After returning home he earned a Bachelor of Science Degree in Criminal Justice from Bryant University with Honors, all the while working as a part time constable in Old Lyme, Connecticut.

James Kenny initially joined the force as a patrol officer with the Glastonbury Police Department, a stone's throw away from his hometown, Rocky Hill. During his tenure at Glastonbury, his forward-thinking embracement of community policing and diligent work habits accelerated him through the ranks, rising in leadership to field training officer, sergeant, and then captain in the year 2000. He stayed on with the Glastonbury Department, serving as a supervisor in both the patrol and detective divisions until he transferred to the Vernon Police Department as a captain in 2006. It is worth noting that whilst serving within the Glastonbury Police Department, James pursued additional opportunities to serve the region such as when he became a founding member and then team leader to the Capital Region Emergency Services Team.

Upon his retirement from Glastonbury's Police Department, James Kenny joined Vernon's Police Department in 2006 as a captain, becoming responsible for the entire operations of the local department. Of course, in transitioning to the Vernon Police Department, Captain James Kenny continued his advocacy of community policing in Vernon's neighborhoods, particularly the Rockville section of town. This proactive initiative did not go unnoticed, and it was not long before Captain Kenny became Police Chief Kenny in 2007. During his term, I had the opportunity to do some "ride-alongs" and witness the engagement with town residents that the chief himself and his officers practiced as part the "Kenny Plan".

Presence was a major tenet of Vernon Police Chief Kenny's tenure as a leader in policing—not just for the region within the second district of Connecticut, but the entire state. He utilized this presence to grow the mission of

and advocate for community policing. Shortly after becoming head of the Vernon Police Department, Chief Kenny was selected to sit on Governor Jodi Rell's Sentencing and Parole Review Task Force in order to thoroughly review policies involved in arresting, charging, sentencing and releasing those convicted of crimes in Connecticut. Around this same time, Chief Kenny also joined the Criminal Justice Policy Advisory Commission, for which he has remained on through to retirement. Even as our nation has brought to the forefront tough discussions on police reform, Police Chief Kenny and the Vernon Police Department remained a source of inspiration to the importance of a community-oriented and integrated local police force. It is worth noting that the Vernon Police Department, under the forward-thinking perspective of Chief Kenny, has long been a leader in this regard with the unit already having implemented policies to build trust within the town, such as through early utilization of body cameras and revisions to their authorized use of force.

Madam Speaker, Chief Kenny has spent his life and career toward the betterment of his community. Chief Kenny has been a leader and a mentor to many people within and outside of the aforementioned policing departments. The town of Vernon owes him an endless amount of gratitude for his leadership in evolving an essential community service, particularly amidst the pandemic. He now retires to dedicate more time to his primary job as a devoted husband to his wife Theresa and a loving father of three daughters Lexie, Jacqueline and Jamie—the last of whom did an outstanding stint as an intern in my D.C. office. I cannot think of a gentleman more deserving of a fruitful retirement, the people of Vernon will truly miss his talented, caring service. To that end, I ask my colleagues in the House join me in honoring and thanking Vernon Police Chief James Kenny for his exemplary lifetime of service and wishing him and his family all the best in their life's new chapter.

LONDON BRIDGE ASSOCIATION
STUDY ON REHABILITATING THE
EAST RIVER TUNNELS

HON. RITCHIE TORRES

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 11, 2021

Mr. TORRES of New York. Madam Speaker, I include in the Record a study conducted by the London Bridge Association on the benefits of implementing a repair-in-place model for rehabilitating the East River Tunnels in New York City. The full study can be found at the following web page: <http://www.gatewayprogram.org/wp-content/uploads/2020/11/2020-11-23-LBA-vFINAL.pdf>.

Track bed and overhead line replacement is a priority because it is responsible for a large percentage of the delays.

1.5. NRT CURRENT CONDITIONS—OVERVIEW

The NRT consists of two tubes and was constructed in the early 1900s and, in addition to suffering from old age, was impacted by Superstorm Sandy, the deadliest and most destructive, as well as the strongest, hurricane of the 2012 hurricane season. The NRT is located on the Northeast Corridor

(NEC), the most heavily used passenger railway in the United States and is used for over 200,000 passenger trips by NJ TRANSIT and Amtrak customers. The NRT is experiencing the following conditions:

Long-term damaged and deteriorating tunnel infrastructure

Leaks in shafts and tubes

Tunnel services are beyond their useful life and need replacement

Track faults

Overhead line (catenary) issues

Poor drainage and maintenance issues

Salts/chlorides from Superstorm Sandy corrode rails and exacerbate stray current

Due to the long-term deterioration and the conditions described above, the NRT's two tubes are currently experiencing incidents that are increasing in frequency and unpredictability and are threatening the reliable operation of the NRT for Amtrak and NJ TRANSIT customers. A report from the Northeast Corridor Commission (Ref 12.1.6) analysed more than 3 million train movements and 750,000 daily delay records between 2014 and 2018. The report found there were 65 days where incidents in or around the NRT resulted in more than 5 hours of train delay, of which 45 were caused by infrastructure issues, resulting in 2,500 delayed trains and 65,800 train delay minutes. The report indicated that the delay minutes were due to:

Signal Problems (13% of delay minutes)

Track Conditions (31% of delay minutes)

Overhead Power (35% of delay minutes)

Other (21% of delay minutes)

1.6. CURRENT REFURBISHMENT PLAN

The current proposal for the NRT Refurbishment proposes a solution that would be completed after the construction and completion of the new Hudson River Tunnel (HRT) in 2028, thus leaving the NRT "at risk" until 2032, at the earliest (as of the 2019 financial Plan). Based on LBA's review of the current NRT conditions, LBA believes that this is an unsatisfactory situation, does not meet global best practice, and that there are approaches that could be adopted to target the refurbishment at a much earlier time.

LBA, therefore, considered how this risk to the NRT infrastructure and to the Amtrak and NJ TRANSIT customer experience could be reduced and a resilient and reliable service established at the earliest possible time whilst delivering better value.

2 EXECUTIVE SUMMARY

2.1 OVERVIEW

This report takes into account the current NJ TRANSIT and Amtrak rail operations and concludes that regular weeknight and weekend periods of a one-tube outage are feasible, reliable, and safe. This would necessitate an in-service sequence of work in only one of the NRT tubes at any point in time and refurbishment could be undertaken simultaneously in a number of locations in the occupied NRT tube by means of bespoke highly productive works trains or road rail vehicles.

This review is conceptual and general in nature, based on limited information provided. Further diligence is required to verify the feasibility of the LBA proposals and to confirm the assumptions made concerning the NRT, as well as developing the planning and budgeting for the NRT Refurbishment work.

Refurbishment activities identified are:

Repair the tunnel lining and seal the leaks

Replace the mechanical and electrical services in the tunnel with new and improved systems

Replace the High Voltage (HV) cables which pass through the tubes

Demolish the bench walls (which are too high and failing) and replace them with new walkways and cable containments

Replace the trackbed, track, and overhead catenary

Replace the signalling system

The refurbishment activities that are proposed to be accomplished through an in-service refurbishment are broadly the same as the activities currently proposed in the full outage scenario.

The specific target of LBA's review has been to consider whether it is feasible, safe, and with no impact to the rail service, to carry out the refurbishment while both of the NRT's two tubes remain in service, with refurbishment work being carried out in agreed off-peak outage periods during both overnights and weekends.

In doing so, LBA have leaned on their experience gained on recent projects in the United Kingdom and also referred to international best practice on other recent projects in the United Kingdom, Europe, Hong Kong, and the United States (the Canarsie Tubes/L-Train). Refurbishment in-service is becoming increasingly the norm of international best practice as highly utilised railway systems/tunnels get older and are under increasing pressure due to rising passenger demand. Some examples of refurbishment in-service on the London Underground, a very old and busy system, include the refurbishment of the Central Line and Northern Line tunnels as well as 3.2 km of the Metropolitan Line (the world's first underground railway dating back to 1863) between Baker Street and Finchley Road Underground Stations.

To demonstrate the feasibility of an in-service NRT Refurbishment that would implement the refurbishment activities identified above, LBA has developed a conceptual approach and developed an outline plan and program for the NRT:

A conceptual approach, strategy, and system of work

Outputs and calculated durations of work based on the available working time (weeknight and weekend one-tube outages)

A schedule for the refurbishment activities for each tube

The logistics arrangements (at an outline stage):

The equipment which could be used to demolish, remove, and reconstruct the walkways/benches

The safety equipment required to carry out the works

The options for trackbed replacement

LBA have carried out a construction planning exercise of all of the main activities with the purpose of demonstrating the overall feasibility and possible schedule of NRT Refurbishment in-service while managing risks to NJ TRANSIT and Amtrak customers. LBA emphasises that such construction planning study is conceptual and general in nature, with limited information.

2.2 FINDING: THE NRT IS EXPERIENCING SIGNIFICANT DETERIORATION

The NRT consists of two tubes and was constructed in the early 1900s and, in addition to suffering from old age, was impacted by Superstorm Sandy, the deadliest and most destructive, as well as the strongest, hurricane of the 2012 hurricane season. The NRT is experiencing the following conditions: Long-term, damaged and deteriorating tunnel infrastructure, leaks in shafts and tubes, tunnel services are beyond their useful life and need replacement, track faults, overhead line (catenary) issues, poor drainage and maintenance issues, and salts/chlorides from Superstorm Sandy corrode rails and exacerbate stray current.

2.3. FINDING: WHAT IS NOT RECOMMENDED

2.3.1 Waiting for the Construction of the New Tunnel to Start NRT Refurbishment:

The current proposal for the NRT Refurbishment proposes a solution that would be

completed after the construction and completion of the new Hudson River Tunnel (HRT) in 2028, thus leaving the NRT "at risk" until 2032, at the earliest (as of the 2019 Financial Plan). Based on LBA's review of the current NRT conditions, LBA believes that this is an unsatisfactory situation, does not meet global best practice, and that there are approaches that could be adopted to target the refurbishment at a much earlier time.

2.3.2 Removing Scope from the Current NRT Refurbishment Plan:

The NRT's two tubes are currently experiencing incidents that are increasing in frequency and unpredictability and are threatening the reliable operation of the NRT for Amtrak and NJ TRANSIT customers. The NRT Refurbishment requires an approach that includes a scope of work necessary to address the long-term deterioration of the existing infrastructure, and should be broadly the same as the activities currently proposed in the full outage scenario.

2.3.3 Repairing the NRT Incrementally Through Smaller Repairs:

A "stabilization" type approach is poor value and will not solve the basic problems.

2.3.4 Leaving the NRT Bench Walls, As They Currently Exist, in Place:

The NRT bench walls cannot be left as is because:

1) The height of the existing bench wall is higher than the level of the train vestibule, requiring an unacceptable stepping distance in an emergency,

2) The headroom of the emergency walkway needs to be increased.

The concrete forming the existing bench walls is likely to be relatively weak with numerous internal voids. There is a requirement to lower the level of the bench wall in the NRT by 2-3 feet in order to achieve satisfactory emergency egress according to NFPA 130. Further, a low-level Maintenance Platform bench wall on the opposite side of the tube from the emergency bench wall is proposed for railway workers to gain access to the train bogies (underneath the train/wheel truck). It should be noted that the Canarsie Tubes (L-Train) bench walls could be left at their existing height, but this is not possible in the NRT based on current information.

2.3.5 Leaving the Track, Trackbed, and Overhead Line, As They Currently Exist, in Place:

The NRT track, trackbed, and overhead line failures, according to the Northeast Corridor Commission report on train performance, are the causes of a significant proportion of the delays to NJ TRANSIT and Amtrak customers and do not meet global best practice. It should be noted that the Canarsie Tubes (L-Train) already had a fixed concrete trackbed system, unlike the NRT, and only partial refurbishment was required.

2.3.6 Leaving the Mechanical and Electrical (M&E) Services, As They Currently Exist, in Place:

Mechanical and Electrical (M&E) Services, including cables, ducting, water and fire main piping, signalling, and communications cabling, are currently operable, but are not considered to be "State of the Art," are contained in degraded benchwalls, and contribute to system failures. Any form of in-service refurbishment will require sequential and phased management of the relocation and replacement of these services, which will be moved in synchronization with the demolition and replacement of the bench walls and necessary repairs to the tunnel concrete lining. The M&E services will need to be protected and fireproofed in compliance with contemporary regulations (operational and emergency compliance requirements).

2.3.7 Replacing Cables in Ducts Encased in Concrete:

It has been previously considered that the only way to protect cables from fire and mechanical damage is to pull them into ducts encased by concrete forming the bench walls. This cumbersome solution restricts the lengths of HV cables which can be pulled into ducts, does not give easy access for maintenance, and requires frequent joint pits which are current sources of failure.

2.4 FINDING: WHAT IS RECOMMENDED

2.4.1 Implement NRT Refurbishment "In-Service":

LBA believes that regular weeknight and weekend periods or one-tube outages are feasible. This would necessitate an in-service sequence of work in only one of the NRT tubes at any point in time and refurbishment could be undertaken simultaneously in a number of locations in the occupied NRT tube. Planning should utilise weeknights for non-invasive work and weekends for more linear, invasive construction work.

Repair the tunnel lining and seal the leaks

Replace the mechanical and electrical services in the tunnel with new and improved systems

Replace the High Voltage (HV) cables which pass through the tubes

Demolish the bench walls (which are too high and failing) and replace them with new walkways and cable containments

Replace the trackbed, track, and overhead catenary

Replace the signalling system

2.4.2 Reduce the Service Impacts at the Earliest Possible Stage:

The prioritisation of track, trackbed, and overhead line replacement is important in planning the NRT Refurbishment, therefore, early activities should include:

Lower trackbed, Where Possible: To achieve a greater clearance between the overhead catenary cable and the train pantograph (arm)

Direct Fixation Trackbed: Replace the existing traditional ballast (crushed stone) trackbed with a fixed concrete system (direct fixation track) to avoid blocked drains and salt-contaminated ballast (that result in signal problems)

Modify or Replace 12.5kV Overhead Line: To achieve the full dynamic and electrical clearances that are required in the crown of the tubes for compliance with standards

2.4.3 Utilise In-Line Methodologies and Sequences for Bench Wall Demolition & Replacement:

LBA have detailed a number of possible methodologies for the replacement of the NRT bench wall based on benchmark performance information from successful international projects to provide an emergency egress walkway, a maintenance platform for railway workers, and locations for the tunnel's electrical/communication cables and third-party services, including a precast solution, GRP encasement solution, duct bank solution with fire protection, fireproof duct solution, and cable in racks only solution. All options have their advantages and disadvantages, but the fireproof duct solution incorporated in a steel cantilevered walkway conceptually seems to offer the best potential ahead of a formal fire risk assessment.

2.4.4 Utilise modern cable solutions and comply with NFPA 130 Fire Life Safety requirements:

LBA makes recommendations for modern cable solutions and an approach to cable management and containment based on laying cables rather than pulling them. Utilizing the longest possible lengths of cable reduces joints and joint pits and ultimately potential cable failures. High Voltage (HV) cables (power cables) and Low Voltage (LV) cables (lighting, telephony, fire detection, alarm, and communications) may require

different types of solutions, depending on the level of Fire Protection required under the NFPA 130 standard.

LV cable containment systems could include continuous troughs and cable racking with fire protection to emergency circuits provided by the direct cable sheathing or a sheathing which contains the cable.

HV cables with intrinsic resistance to fire are not available but fire protection may be required to protect business continuity as the result of a fire risk assessment identifying an unacceptable level or risk. Cables could be contained in a number of ways including securing to low level cable racks and fireproof ducting. Suitable fireproof ducting has been identified if required and included in the conceptual bench wall replacement options. Space constraints are an important consideration because the fire resistance is dependent on the duct material thickness and air gaps are required around the cables for cooling. A detailed design would be required to determine the final solution for the duct.

Protection to all cables and services should be provided by derailment protection provided by guard rails, which sit inside the running rails.

Refurbishment should ensure that the emergency egress walkway clearances are safe and compliant with NFPA 130 requirements.

2.4.5 Remove the Third Rail:

LBA believes that the Third Rail should be removed because it is not used routinely, there are alternatives to its use in an emergency, the cost of installing and maintaining is unnecessary, it is an unnecessary complication in safety and emergency procedures, and, if required, the Third Rail can be re-installed at the end of construction or another future date.

2.4.6 Treat the In-Service Refurbishment Operation as a System:

Optimise the overall performance rather than maximise component elements of the cycle and propose using mechanical measures where practicable to enhance productivity and promote innovation, refinement, and improvement.

2.4.7 Utilise Bespoke and Highly Productive Works Trains & Railhead:

Battery or hybrid locomotives could be used for train rescue and for handling works trains for NRT refurbishment. A railhead should be constructed to support the activities within the NRT tubes to service and load work trains for the refurbishment.

2.4.8 Incorporate Risk Mitigation Throughout the Planning of the Refurbishment:

Mitigations have been implemented successfully to help other refurbishment projects of comparable age, complexity, and essentiality. The risk chapter of this report identifies specific risks and proposes appropriate mitigations. LBA recommends that a risk assessment is conducted by the Integrated Work Team, which includes the Gateway Partners, to compile and address the risks and deficiencies that could occur during the refurbishment program.

HONORING THE CAREER OF KEN SMITH

HON. BILLY LONG

OF MISSOURI

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 11, 2021

Mr. LONG. Madam Speaker, I rise today to honor the long and storied career of Branson West City Administrator Ken Smith.

Mr. Smith began his tenure in 1998, and since then, has worked tirelessly for the people of Branson West. As City Administrator, he has overseen numerous projects designed to improve and expand the city. Shortly after he took office, the new Sewer Treatment Plant Facility was completed. This facility was designed to meet the needs of the city well into the future and has remained in operation, ready for the city to continue prospering. He has also overseen the expansion of utility lines so that the city can provide essential services to more properties. In addition to these projects, in recent years, sidewalks and streetlights have been added along Business Highway 13, and a new water tower has been approved.

In October 2010, Branson West Municipal Airport was opened. The new airport includes a 5000-foot runway, and 10,000 square foot maintenance hangar connected to the terminal. There are 39 private T-hangars, all of which are occupied, and construction is about to begin on 4 larger square hangars. All of this allows for a general aviation facility, which serves the city and surrounding communities. In 2016, the city limits were expanded south on Highway 13 to Highway DD.

All these projects have allowed for community growth. New businesses have been drawn to the community, and there are more projects underway to encourage further business expansion. The city has also recently acquired land for future parks and recreation. Mr. Smith has overseen all these projects, and many more, during his 23-year tenure as City Administrator.

Madam Speaker, since taking office in 1998, Ken Smith has worked every day for the people of Branson West. He has led several projects and expansions of the city, all designed to improve the community he has so enthusiastically served. I wish him, and his family a happy retirement.

TRIBUTE TO PAUL JONES

HON. KEN CALVERT

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 11, 2021

Mr. CALVERT. Madam Speaker, I rise today to honor and congratulate Paul D. Jones II who will be retiring this spring after a highly distinguished career of service in the California water industry. For over twenty-five years, Mr. Jones has been the top executive officer for major water agencies in the Southern California region. Over the last decade, Mr. Jones has served as the General Manager for Eastern Municipal Water District (EMWD), which serves nearly one million customers in western Riverside County.

During his tenure at EMWD, Mr. Jones has been widely recognized for his leadership in elevating Eastern to one of the most respected and forward-thinking water, wastewater and recycled water agencies in the nation. Mr. Jones played an instrumental role in notable accomplishments for EMWD, such as the agency's achievement of 100 percent beneficial reuse of its recycled water supplies, the initiation of its potable reuse program, and the spearheading of key infrastructure investments which will provide safe and reliable services for future generations. Under Paul's direction,